

2/26

FIG. 2 (A)

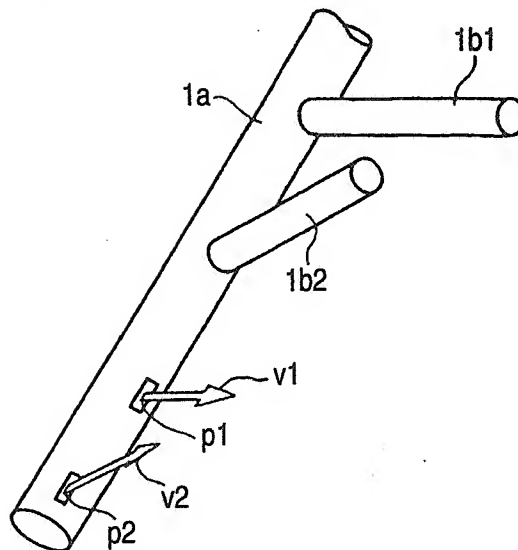
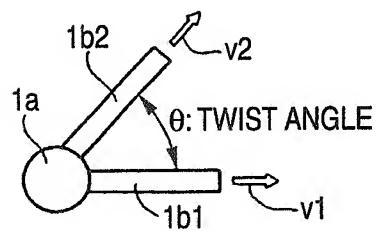


FIG. 2 (B)



3/26

FIG. 3

	RESTRAINED DEGREES OF FREEDOM SUPPORT MEMBER	X-AXIS TRANSLATION	Y-AXIS TRANSLATION	Z-AXIS TRANSLATION	X-AXIS ROTATION	Y-AXIS ROTATION	Z-AXIS ROTATION
COMPLETE RESTRAINT	CONNECTOR	DISABLED	DISABLED	DISABLED	DISABLED	DISABLED	DISABLED
COMPLETE RESTRAINT	LONG-HOLE CLAMP	DISABLED	DISABLED	DISABLED	DISABLED	DISABLED	DISABLED
ROTATIONAL RESTRAINT	ROUND-HOLE CLAMP	DISABLED	DISABLED	DISABLED	DISABLED	DISABLED	ENABLED
ROTATIONAL RESTRAINT	CORRUGATED LONG-HOLE CLAMP	DISABLED	DISABLED	DISABLED	ENABLED	DISABLED	DISABLED
ROTATIONAL RESTRAINT	CORRUGATED ROUND-HOLE CLAMP	DISABLED	DISABLED	DISABLED	ENABLED	DISABLED	ENABLED
COMPLETE FREEDOM	BRANCH POINT	ENABLED	ENABLED	ENABLED	ENABLED	ENABLED	ENABLED

4/26

FIG. 4 (A)

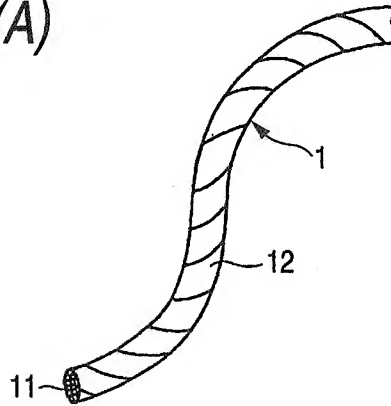


FIG. 4 (B)

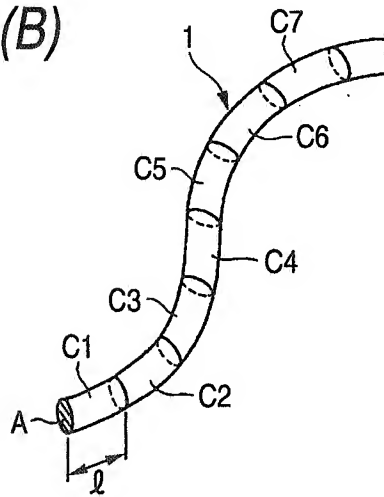
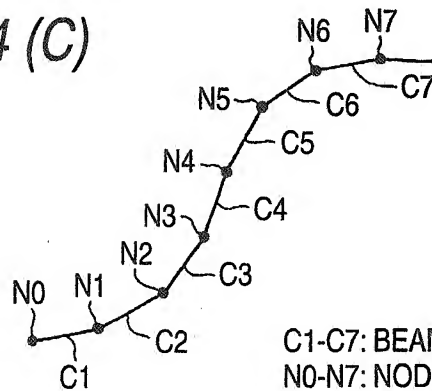
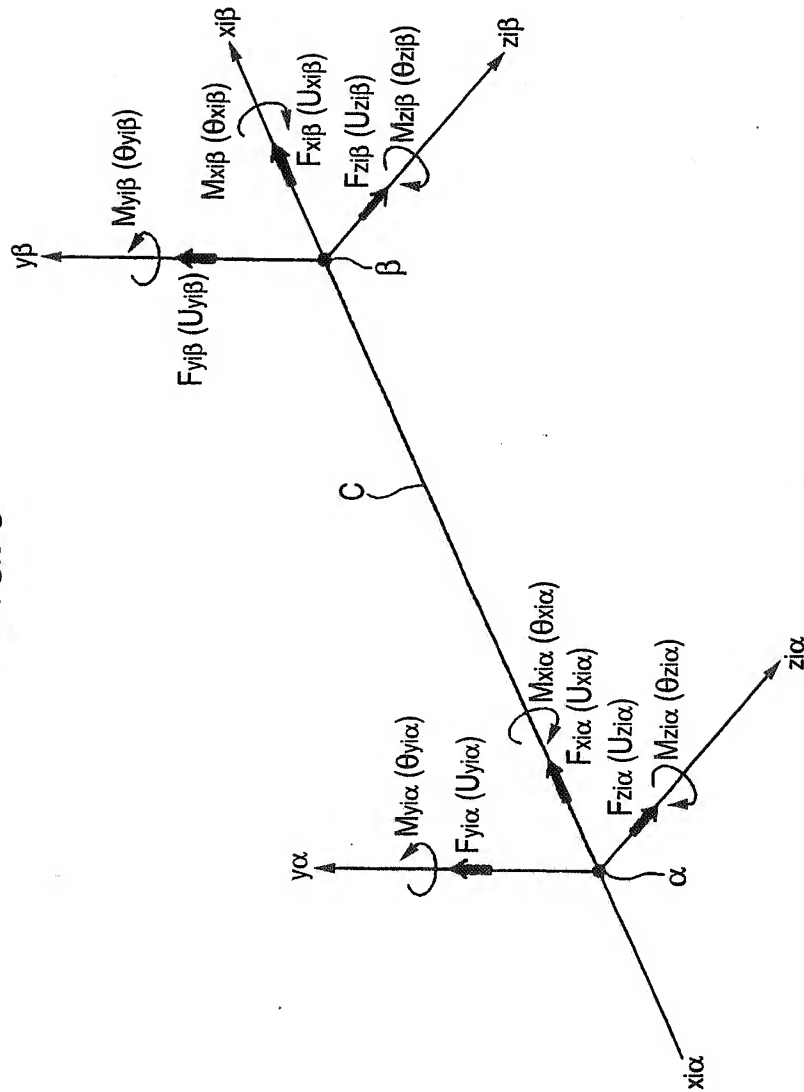


FIG. 4 (C)

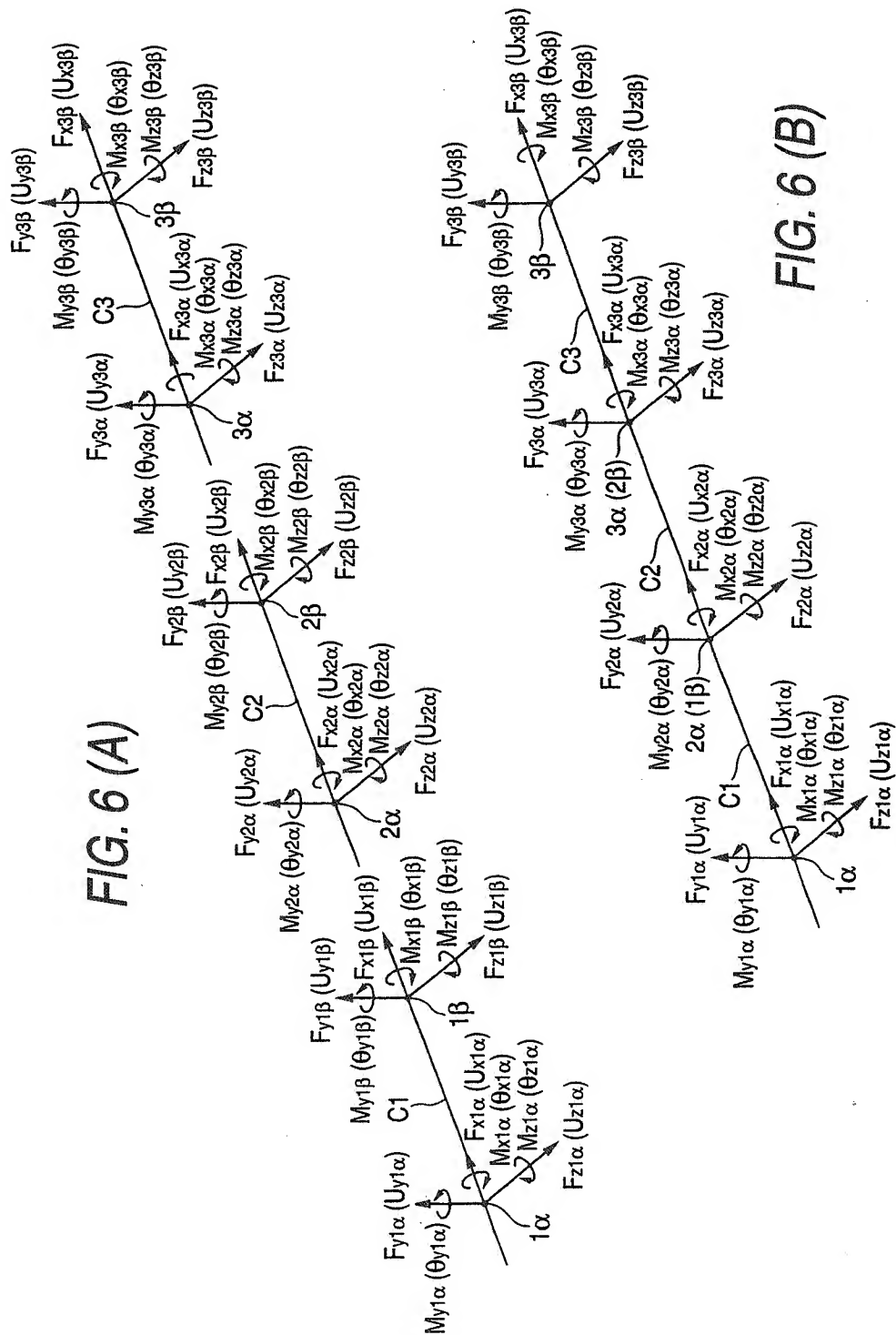


C1-C7: BEAM ELEMENT
N0-N7: NODE

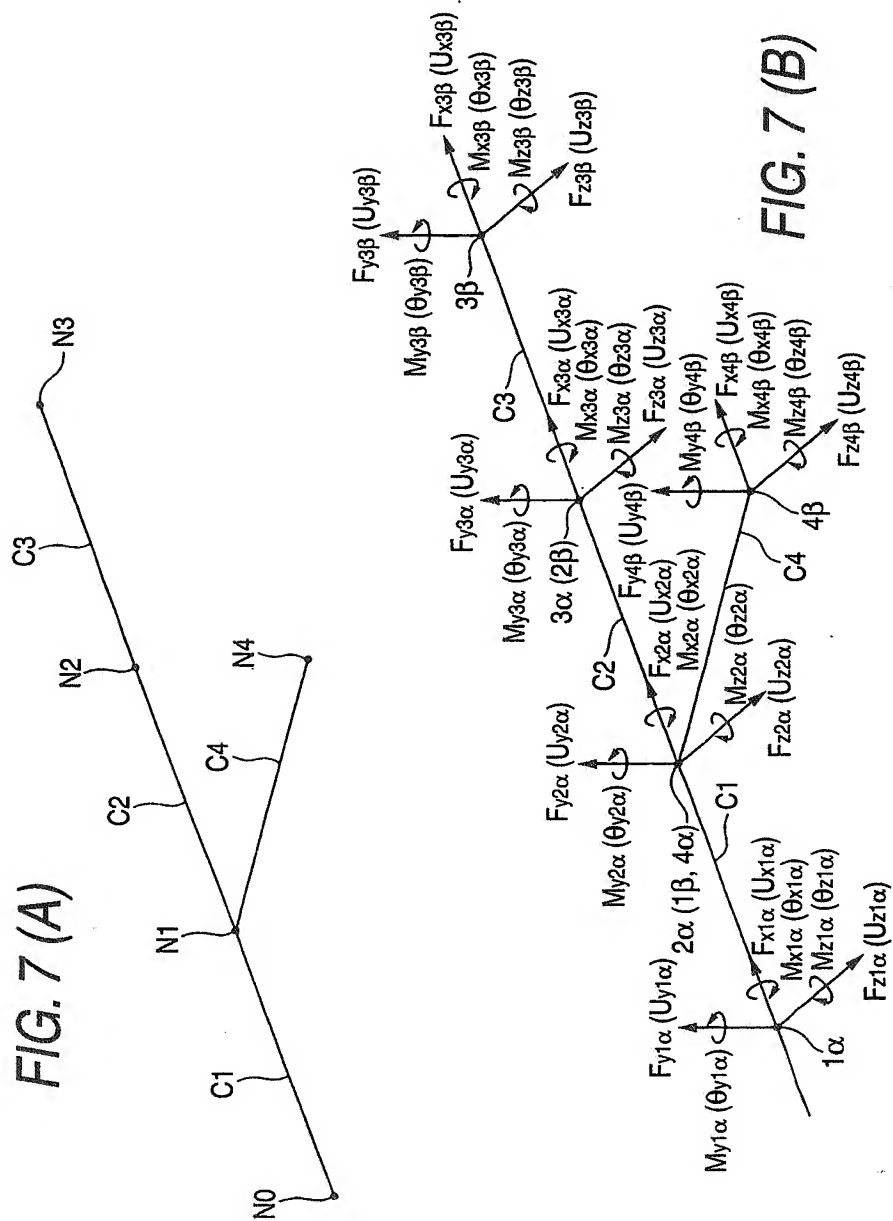
FIG. 5



6/26



7/26



8/26

FIG. 8 (A)

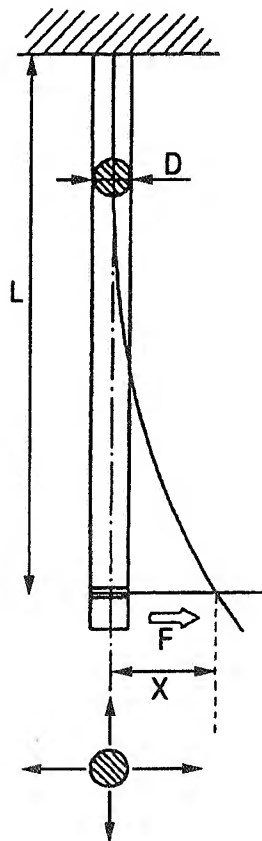
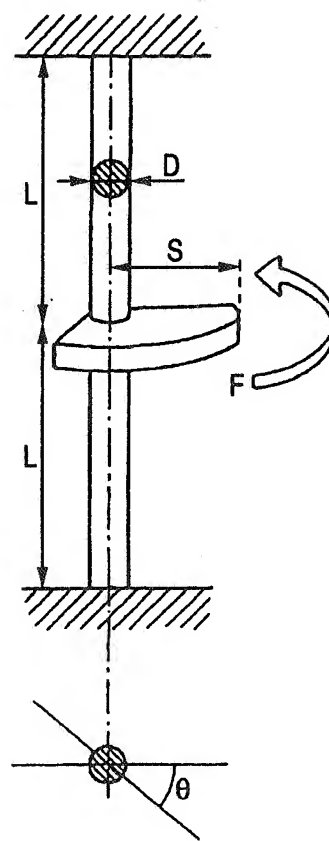


FIG. 8 (B)



9/26

FIG. 9

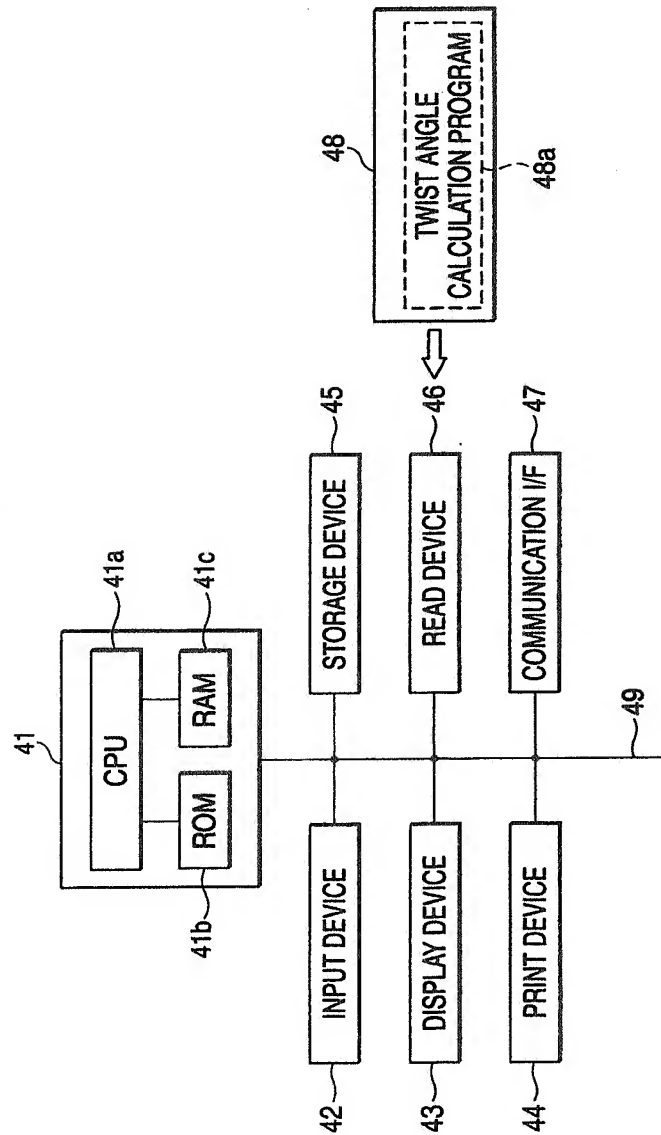
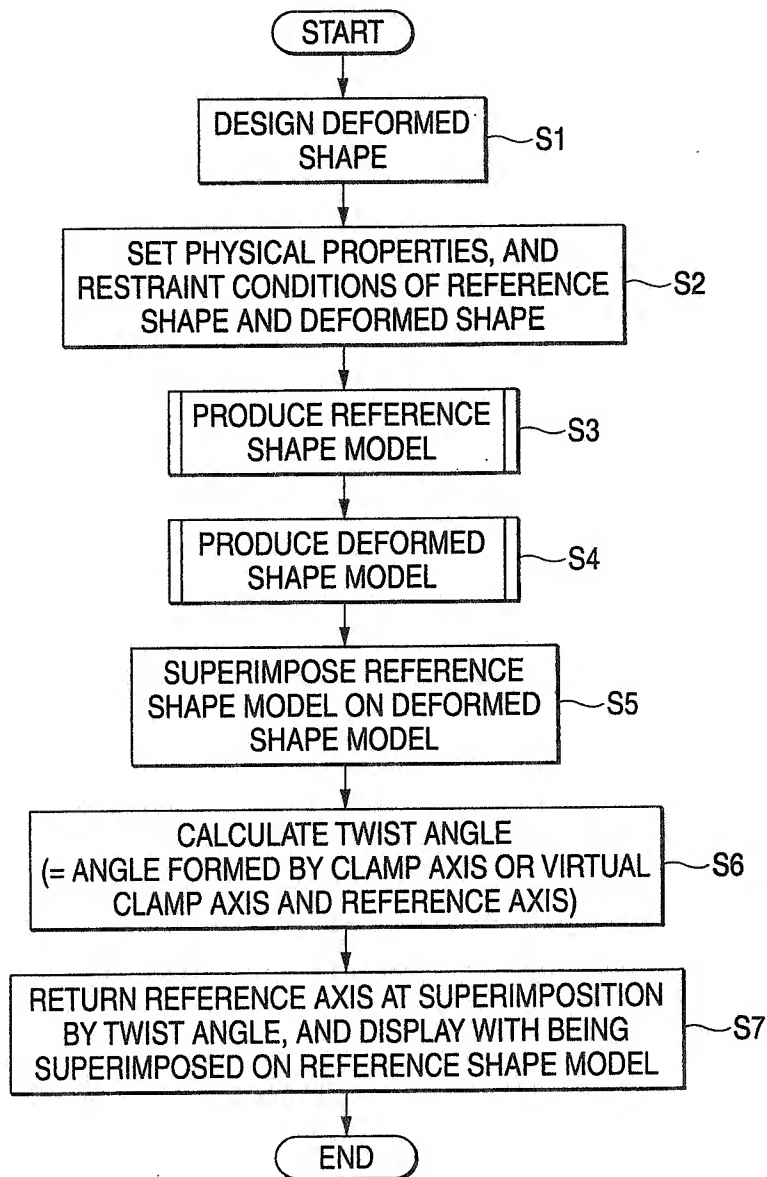
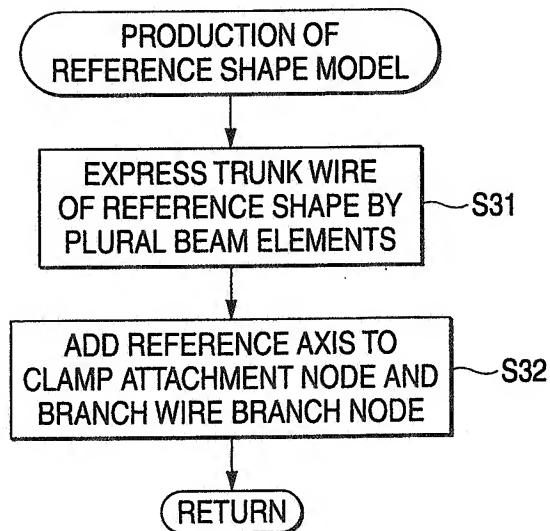


FIG. 10



11/26

FIG. 11 (A)



12/26

FIG. 11 (B)

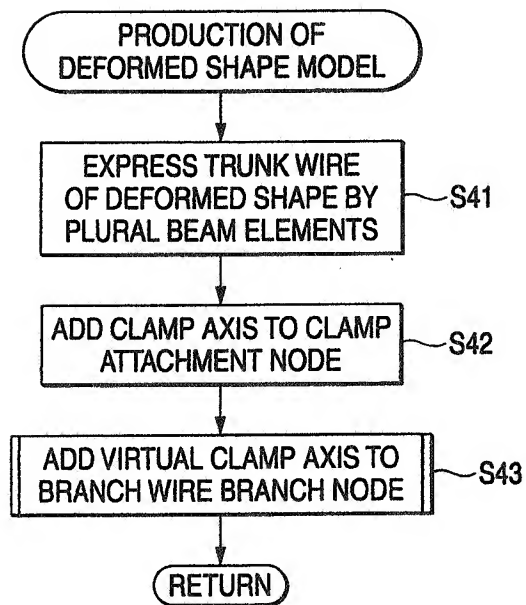


FIG. 11 (C)

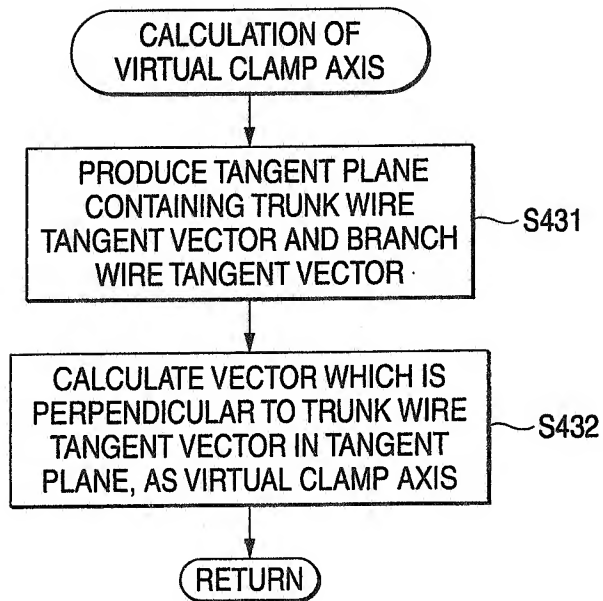


FIG. 12 (A)

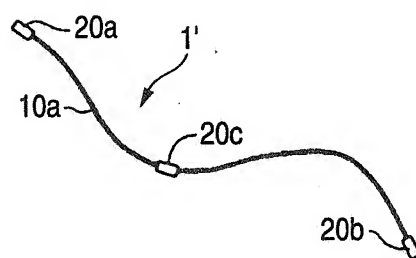


FIG. 12 (B)

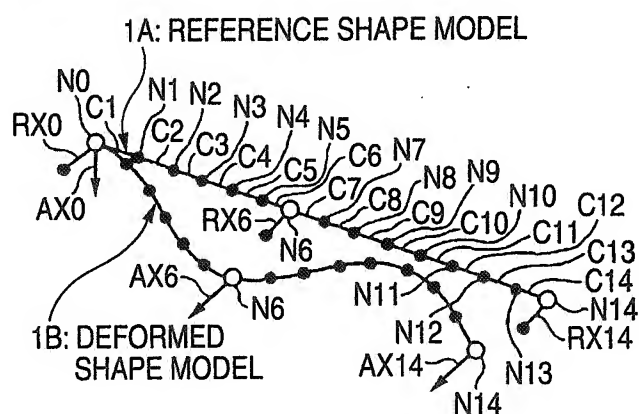


FIG. 12 (C)

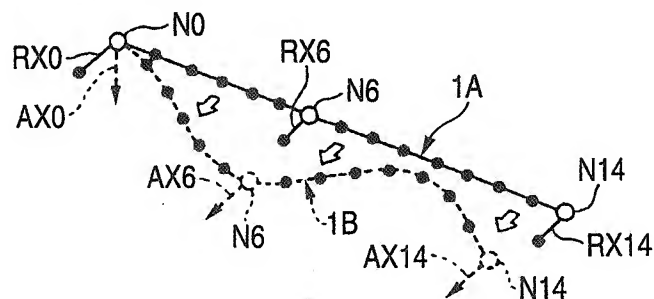


FIG. 12 (D)

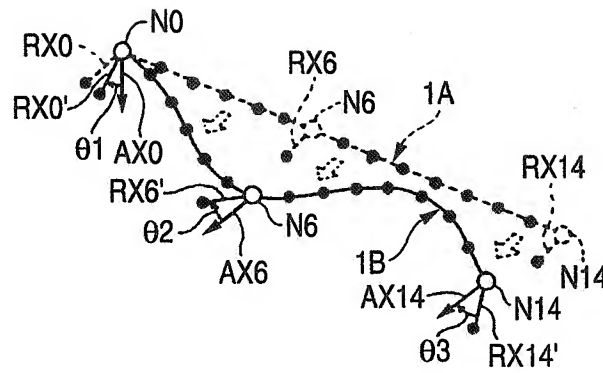
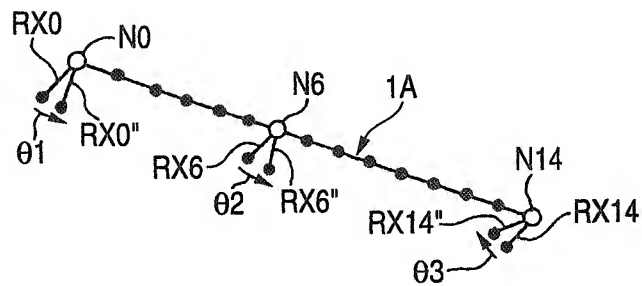


FIG. 12 (E)



θ_1 - θ_3 : TWIST ANGLE

FIG. 13

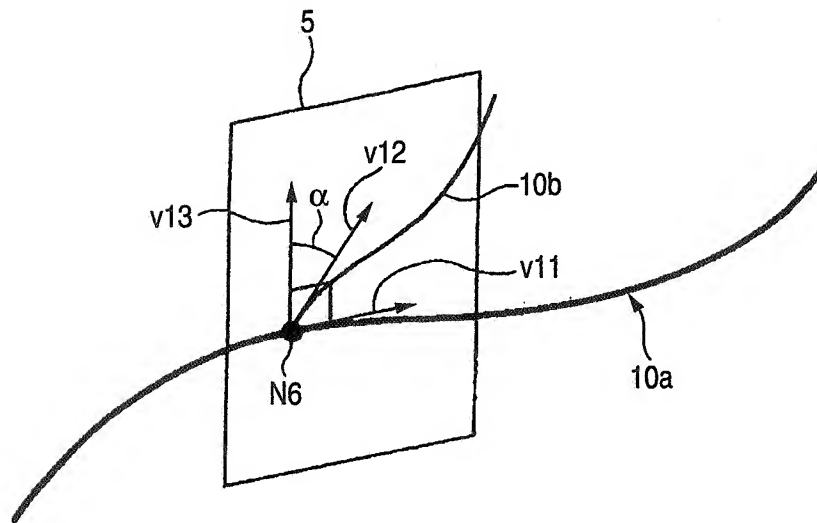
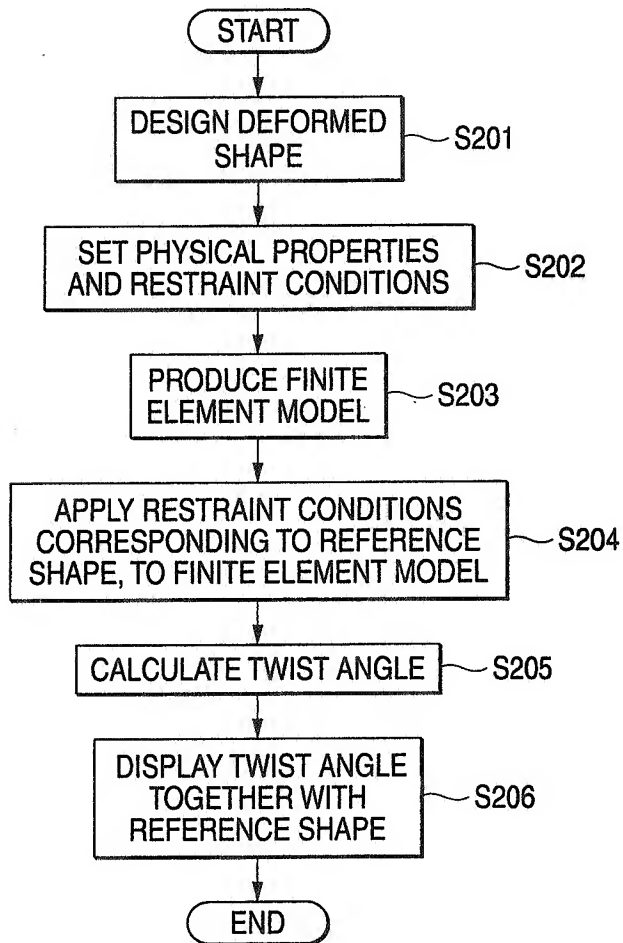


FIG. 14



18/26

FIG. 15 (A)

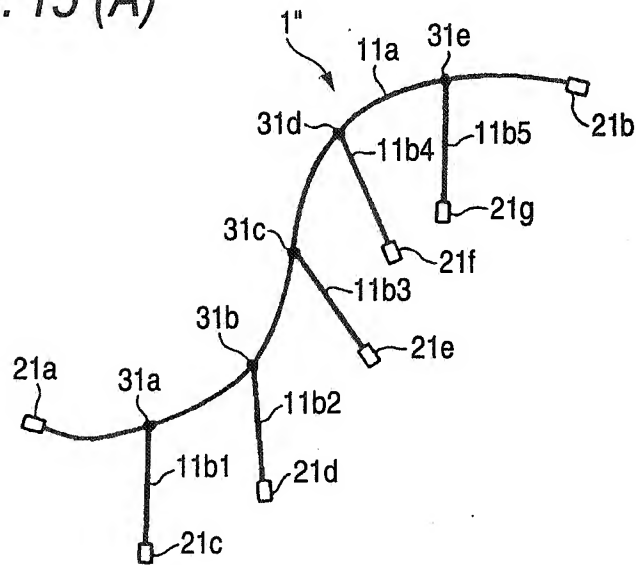


FIG. 15 (B)

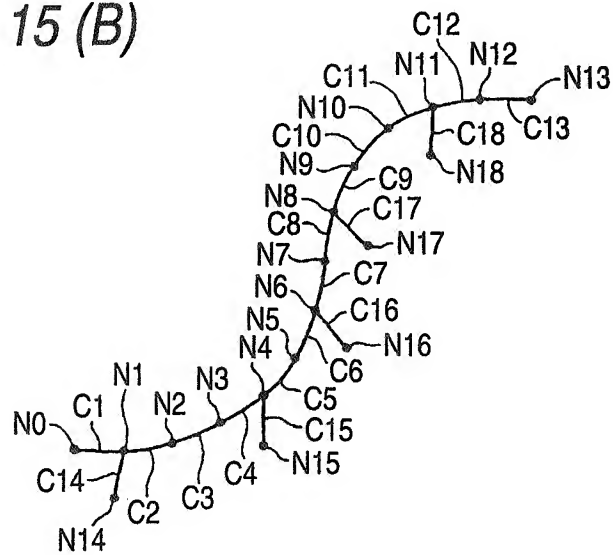


FIG. 15 (C)

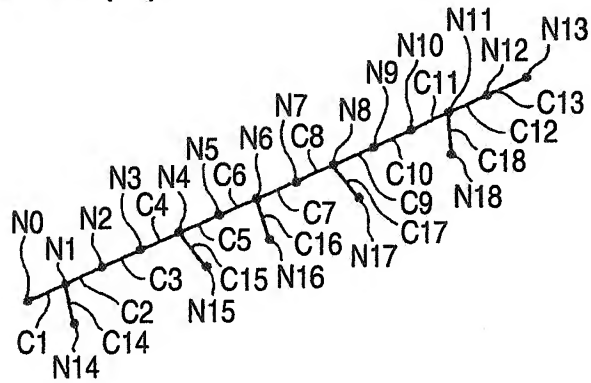
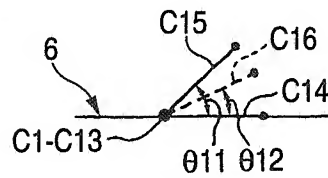


FIG. 15 (D)



θ_{11}, θ_{12} : TWIST ANGLE

20/26

FIG. 16

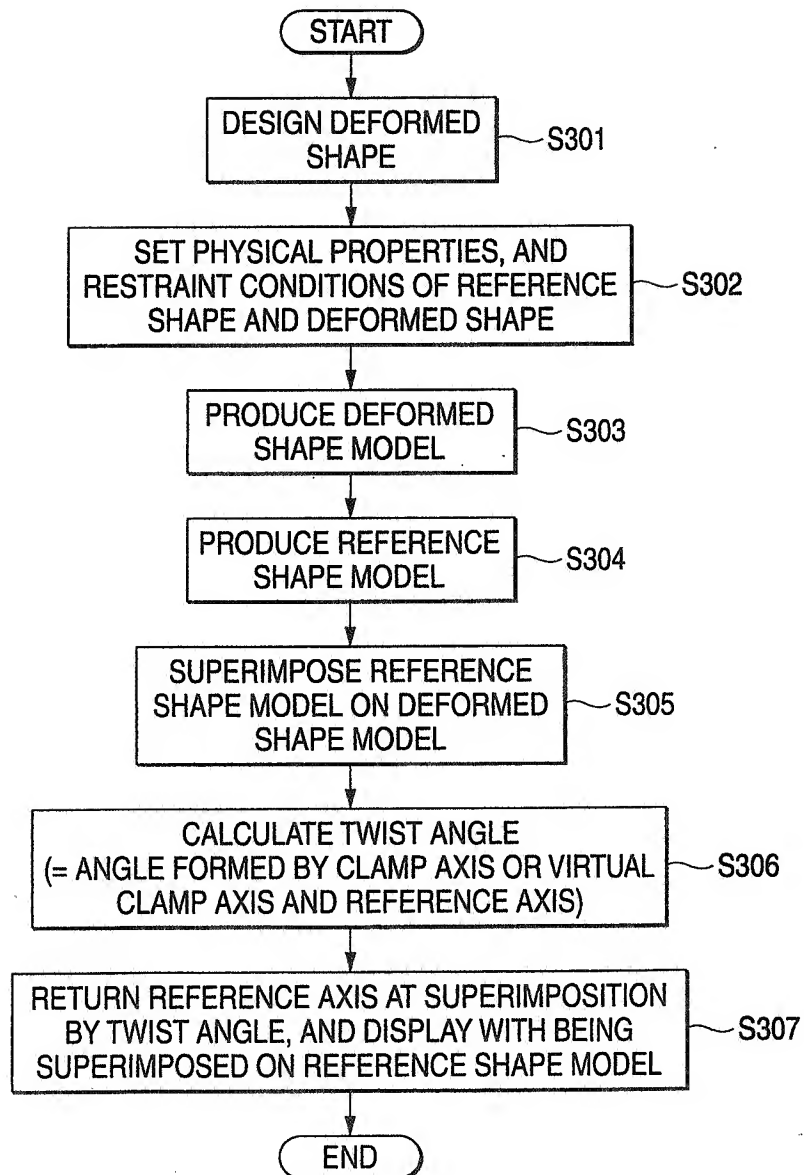


FIG. 17

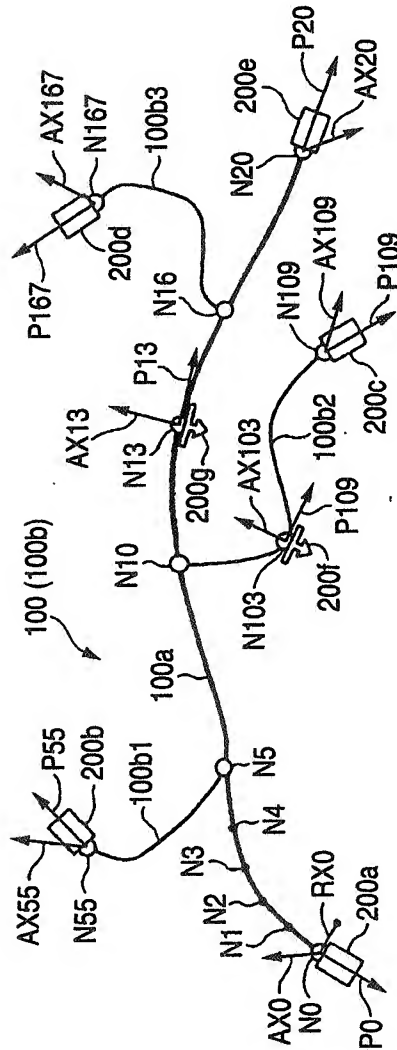


FIG. 18

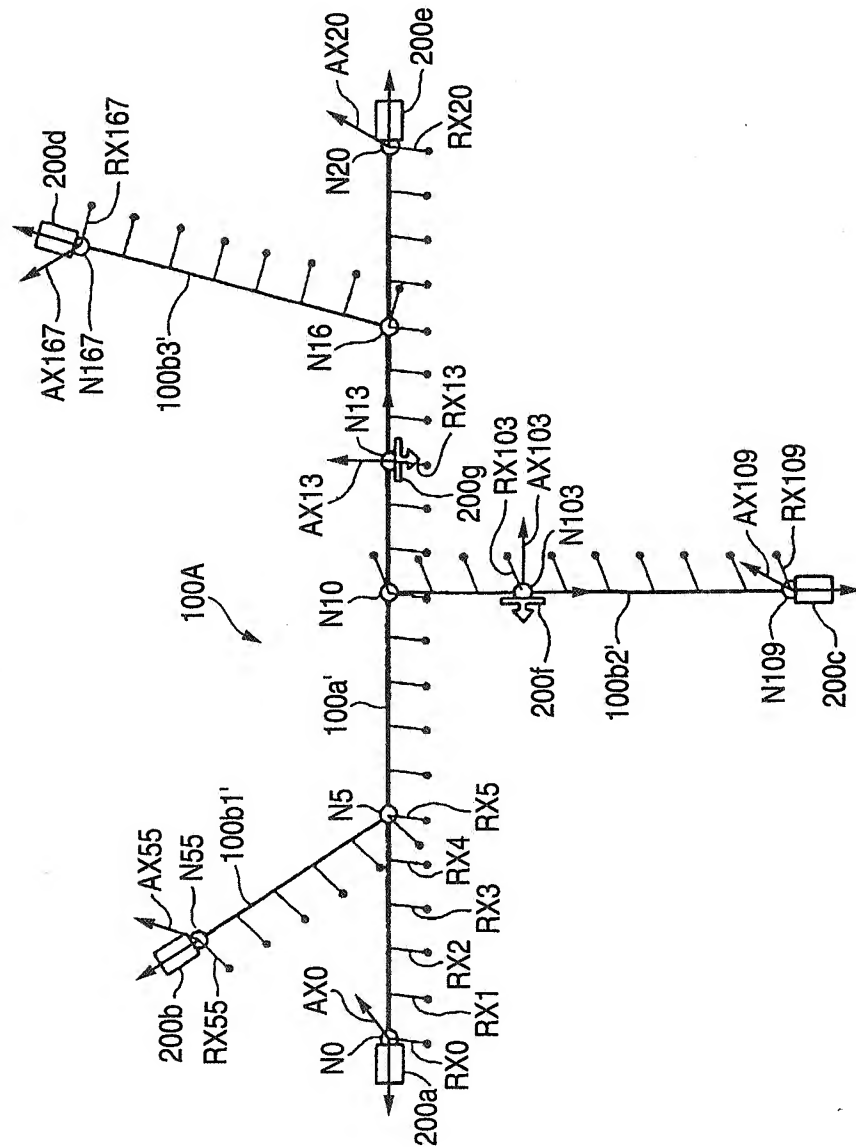
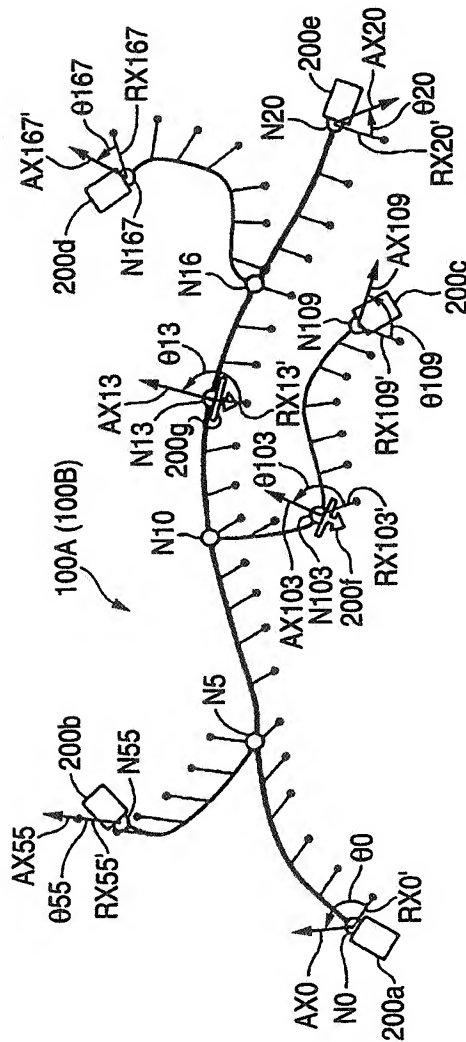
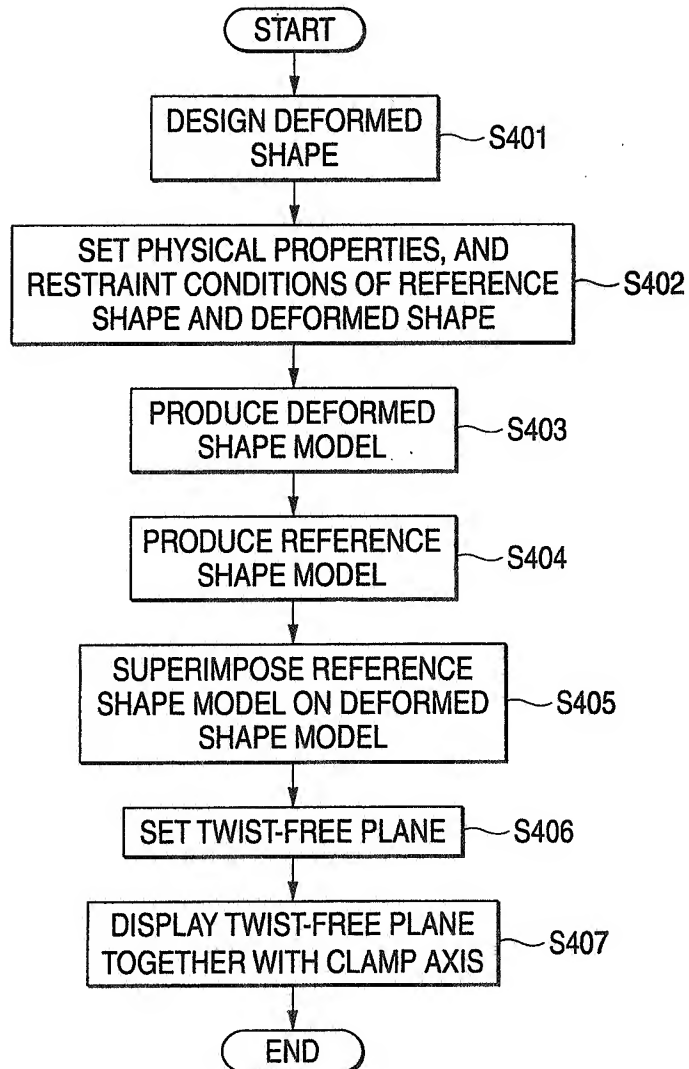


FIG. 19



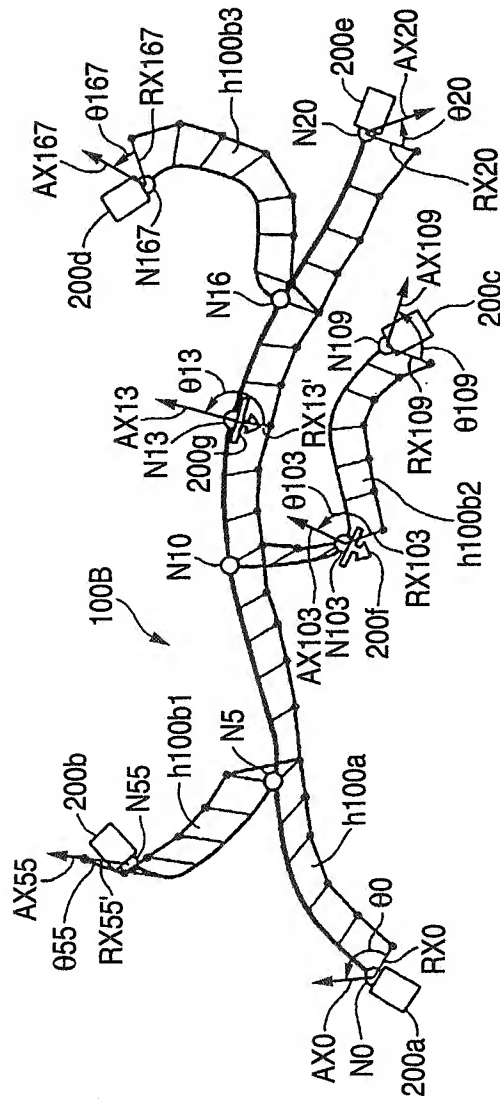
θ0 (θ13, θ20, θ55, θ103, θ109, θ167): TWIST ANGLE

FIG. 20



25/26

FIG. 21



h100a (h100b1, h100b2, h100b3): TWIST FREE PLANE

26/26

FIG. 22 (A)

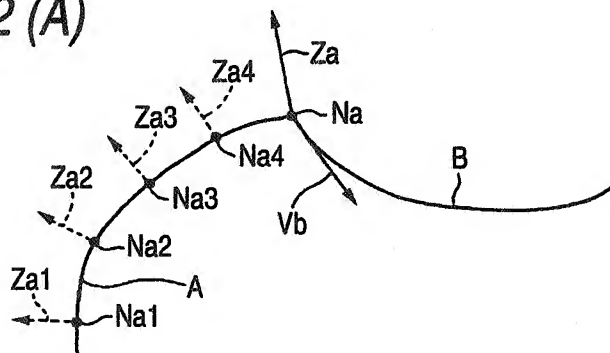


FIG. 22 (B)

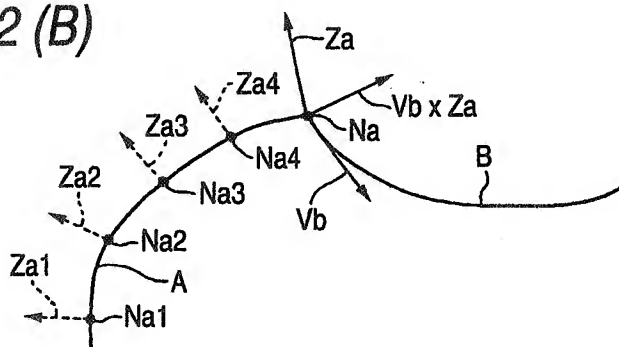


FIG. 22 (C)

